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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/638,606	08/15/2000	Sean P. Burns	GIO-007-US	1629

7590 01/02/2003

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EXAMINER	
MILLER, EDWARD A	

ART UNIT	PAPER NUMBER
3641 ~~3643~~	~~4/21/5~~

DATE MAILED: ~~01/02/2003~~ 8/27/03

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/638,606	Applicant(s) BURNS ET AL.	
	Examiner Edward A. Miller	Art Unit 3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 October 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3 and 13-33* is/are pending in the application.

4a) Of the above claim(s) *19 and 20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,13-18 and 21-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 3, 13-18 and 21-33 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Burns et al. WO 98/06682.

It appears that this publication anticipates the instant claims. It appears that the instant situation is as set forth in *In re Lukach*, 169 USPQ 795, also *In re DeSeversky*, 177 USPQ 144, where the instant c-i-p application is somewhat narrower than the publication, more than a year prior to the instant filing date.

To the extent necessary, variation of specific notoriously well known details such as the various well known gas generating compositions would have been obvious to one of ordinary skill in the art. It is well settled that optimizing a result effective variable is well within the expected ability of a person or ordinary skill in the subject art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980), *In re Aller*, 220 F.2d 454, 105 USPQ 233 (CCPA 1955).

Applicants' arguments are not persuasive of error. To allege the application has basis in the parent fails to rebut the case law. Indeed, the opposite is true. Applicants' misquote the MPEP, which supports the examiner's position. Having a "basis" is not the same as "support" in the sense of 35 USC 112, 1st paragraph, as required in 35 USC 120. [Emphases added below.]

"MPEP 2133.01 Rejections of Continuation-In-Part (CIP) Applications

When applicant files a continuation-in-part whose claims are not ***supported by*** the parent application, the effective filing date is the filing date of the child CIP. Any prior art disclosing the invention or an obvious variant thereof having a critical reference date more than 1 year prior to the filing date of the child will bar the issuance of a patent under 35 U.S.C. 102(b). *Paperless Accounting v. Bay Area Rapid Transit System*, 804 F.2d 659, 665, 231 USPQ 649, 653 (Fed. Cir. 1986)."

35 U.S.C. 120 Benefit of earlier filing date in the United States.

"An application for patent for an invention ***disclosed in the manner provided by the first paragraph of section 112 of this title*** in an application previously filed in the United States...."

In the instant c-i-p, the gas generating composition of the parent was not disclosed as it is in the instant specification, nor were there limitations as found herein, to define over the prior art used in the parent. The changes are too numerous to cite fully, but they include the currently acceptable levels of toxic gas impurities, specification page 2, lines 10-12, the incorporation by reference of prior art near the bottom of page 1 of the specification, the gas generants being in extruded form, and what the gas generator compositions may include throughout. Further, the amounts of SNCR compound, found at specification page 5, lines 22-25, are more limited than in the parent application. Thus the instant claims, in view of the specification, do not find description support in the manner of 35 USC 112, 1st paragraph, in the parent application. Further, changes were made in the manner of deletions, which also present the issue of new matter, or the instant disclosure differs from that in the parent. This includes the elimination of ammonia per se as a SNCR compound.

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> **The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.**

4. Claims 3, 13-18 and 21-33 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The disclosure is not adequately enabling. The gas generating compositions and the parameters of the SNCR added, including amounts, etc., are critical or essential to the practice of the invention, but they are neither included in the claim(s) nor enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). Note the MPEP in this regard.

2164.01 Test of Enablement

Any analysis of whether a particular claim is supported by the disclosure in an application requires a determination of whether that disclosure, when filed, contained sufficient information regarding the subject matter of the claims as to enable one skilled in the pertinent art to make and use the claimed invention. The standard for determining whether the specification meets the enablement requirement was cast in the Supreme Court decision of *Mineral Separation v. Hyde*, 242 U.S. 261, 270 (1916) which postured the question: is the experimentation needed to practice the invention undue or unreasonable? That standard is still the one to be applied. *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988). Accordingly, even though the statute does not use the term "undue experimentation," it has been interpreted to require that the claimed invention be enabled so that any person skilled in the art can make and use the invention without undue experimentation. *In re Wands*, 858 F.2d at 737, 8 USPQ2d at 1404 (Fed. Cir. 1988).

Looking to the Wands factors, applicants state that the problems are difficult to solve, involving different ingredients as fuels oxidizers, additives, etc., and that attempts to improve NO_x serve to worsen CO behavior, and vice versa. The problems are thus manifold and perplexing. On the other hand, applicants merely state that the compositions which can be improved by their technique can be determined by the ordinary artisan. Further, in the specific examples, none of the main ingredients are specified, only the SNCR compound. Thus, applicants admit the problem to be soluble at best with considerable difficulty, but they provide no guidance detail on how to solve the problem. From the cited prior art, there are as many as 5 or more ingredients, each of which may be varied from perhaps dozens or more for oxidizers, to an almost unlimited number of organic compounds for fuels, and then merely recite amines, amides, imides, ammonium salts, and so on, as the SNCR compound, which are also essentially unlimited in number, not to mention various additives as taught in the references. This is not to mention varying amounts of each, as well as any physical conformation that may be required as to closeness, compare Examples 3 and 4 in the specification which consider the gas generant beds, or the desirable reaction temperatures. Thus, it would require unreasonable experimentation to determine what works in what situation. Applicant has given at best the idea that a problem exists, and invites experimentation by the ordinary artisan to determine a solution.

5. Claims 3, 15, 18 and 21-33 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Blomquist '104.

Blomquist teaches, in the Abstract, the use of ammonium salts, including ammonium halides and ammonium sulfate, as coolants to reduce the reaction temperature of a gas generant composition, and thus reduce the amounts of CO and NO_x. It may appear that the examples with ammonium chloride anticipate the broader claims, while substitution of ammonium sulfate would at least be obvious, if not deemed specifically taught in the anticipation sense. See col. 3, lines 34-38, col. 6, lines 12-14, and col. 7, line 20. This reference is applicable since the benefit of the parent application is denied as set forth above, and additionally in the parent application, the claims were at all times rejected under 35 USC 112, first paragraph, for a lack of proper description and/or enablement. While applicant may argue that the ammonium salt is part of the composition, this is not deemed adequately defined by the claims to exclude this reference. Applicants originally included language that the gas generant was extruded, e.g., separate bodies, but applicants chose to delete this limitation. The examiner chooses to read the terminology broadly. Something that would not be heterogeneous, would be the case of a solid solution gas generant including an ammonium salt, which is homogeneous. Further, it is known in the art to use powdered compositions, which would be heterogeneous granules of gas generant ingredients, with distinct coolant granules, which is notoriously well known and obvious. Variation of the specific location of the coolant ingredient would have been obvious to one of ordinary skill in the art. In any event, the gas generant of the claims is not defined to preclude this reading of the claims. Applicants cannot both have their (cake, e.g. broad) claims, and (eat it, e.g.) define over such references as this. Variation of such notoriously well known parameters would have been obvious to one of ordinary skill in the art. It is well settled that optimizing a result effective variable is well within the expected

ability of a person or ordinary skill in the subject art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980), *In re Aller*, 220 F.2d 454, 105 USPQ 233 (CCPA 1955).

6. Claims 3, 15, 21, 23, 25, 27, 29 and 31 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over each of MacLaren et al., Poole '588, Highsmith et al. '014, Poole et al. '272, and Hurley et al.

This rejection is predicated based on the same reading of the claims as requiring no specific gas generating composition, nor any specific amounts, nor any specific amount of NO_x performance and includes as SNCR compounds, amines (and derivatives), as well as ammonium salts in certain references. In Hurley et al., col. 8, "Table I", the sodium nitrite is a gas generant composition, wherein the nitrite contains nitrogen to generate nitrogen gas when reacted with the ammonium chloride (inherent SNCR compound). In Poole et al., '272 nitroguanidine comprises the gas generant and ammonium nitrate is the ammonium salt (inherent SNCR). In Poole '588, note col. 4, lines 24-30, and in col. 8, lines 29-50, the toxics of the gas generant are controlled by potassium 5-amino tetrazole, which is an amine and an amine derivative, added for applicants' purpose. Further, Poole '588 teach that the same ingredients may have dual uses, as in the paragraph briding col. 6-7. Highsmith et al., col. 4, lines 1-13 and 20, teach ammonium salts of substituted amines (BTA compounds) which are both part of the nitrogen generating composition and an ammonium salt, inherent SNCR compound, a dual use as taught in Poole as is notoriously well known to one of ordinary skill in the art. MacLaren et al. teach different dual use compounds, melamine and dicyanamide, amine derivatives, stated to produce breathable gas per the Abstract thereof, and with low toxic NO_x at col. 4, line 43 and col. 5, line 43. If necessary , variation of the specific ingredients and the arrangement thereof would have been obvious per the case law cited above.

7. Claims 14 and 17 rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a new matter rejection. There is no apparent basis, and applicants have not pointed out such, for the recitations of what the gas generator ingredients are in these claims. This does not seem to have any basis in the specification as filed. Applicants are required to point out the basis therefore, or to cancel the new matter.

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 2, 15, 18 and 21-33 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the claims of U.S. Patents No. 6,306,232 and 6,074,502. Although the conflicting claims are not identical, they are not patentably distinct from each other because of clear overlap. This involves the broad reading of the instant claim language as set forth above. Further, it involves the respective ammonium salts, for example, as inherent SNCR compounds and fuel.

10. Should applicants maintain the breadth believed to exist in the claims, as currently broadly read, applicants are reminded of their duty of disclosure relative to other patents they may have,

which similarly include ammonium salts or amines and derivatives, inherent SNCR compounds, and which may have good NO_x results, re obviousness type double patenting. See MPEP 2004.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Notably, this includes Katzakian et al. for solid solution homogeneous gas generating compositions. Poole '757 is the basic gas generating composition as to which Poole '588 is improved via addition of an amine/ amine derivative NO_x reducer. Catanzarite teaches the use of powdered gas generating compositions, as alternative to pressed discs, e.g., at col. 11, lines 13-20, as well as that the coolant may be part of the main gas generating charge, commingled or separate in the same place, and also at col. 6, lines 60-68, and to generate non-toxic gas at col. 17, line 45, and with variation of physical form, layers, etc., at col. 19, lines 42-67.

12. Any inquiry concerning either this or an earlier communication from the Examiner should be directed to Examiner Edward A. Miller at (703) 306-4163. Examiner Miller may normally be reached Monday-Thursday, from 10 AM to 7 PM.

If attempts to reach Examiner Miller by telephone are unsuccessful, his supervisor Mr. Carone can be reached at (703) 306-4198. The Group fax number is (703) 305-7687.

If there is no answer, or for any inquiry of a general nature or relating to the application status, please call the Group receptionist at (703) 308-1113.

Miller/em
December 28, 2002

EDWARD A. MILLER
PRIMARY EXAMINER
ART UNIT 3641